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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,490	10/28/2003	Aaron D. Bachelder	53932/RAG/C766	5761
23363	7590	05/16/2006	EXAMINER	
CHRISTIE, PARKER & HALE, LLP			CHANG, SHIRLEY	
PO BOX 7068			ART UNIT	
PASADENA, CA 91109-7068			PAPER NUMBER	
			2612	

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/696,490

**Applicant(s)**

BACHELDER ET AL.

**Examiner**

Shirley Chang

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

**Claim Rejections - 35 U.S.C. § 103**

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claim(s) 1-2, 11-16 is/are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arbinger (6339382) in view of Hutchinson (2003/0164775).**

As to claim 1,

Arbinger discloses:

An in-vehicle warning system (fig. 1, 2) to warn motorists of approaching emergency vehicle comprising;

a global positioning system receiver in said emergency vehicle (fig. 1, el. 18; col. 3, lines 20-36);

an on-board diagnostic computer receiving the output from said global positioning system receiver and deriving pertinent vehicle data in digital form (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

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Arbinger fails to specifically teach an emergency vehicle transmitter for transmitting a primary audio signal representing pertinent vehicle data and a sub-carrier interrupt; a radio receiver capable of receiving sub-carrier interrupts in said motorist's vehicle receiving said primary audio signal representing pertinent vehicle data from said emergency vehicle transmitter; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle.

In an analogous art, Hutchinson discloses:

an emergency vehicle transmitter for transmitting a primary audio signal representing pertinent vehicle data and a sub-carrier interrupt ([0019-0020]; [0017])

a radio receiver capable of receiving sub-carrier interrupts in said motorist's vehicle receiving said primary audio signal representing pertinent vehicle data from said emergency vehicle transmitter; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle ([0020] automatically retunes)

It would have been obvious to one of ordinary skill in the art to modify Arbinger's system to teach an emergency vehicle transmitter for transmitting a primary audio signal representing pertinent vehicle data and a sub-carrier interrupt; a radio receiver capable of receiving sub-carrier interrupts in said motorist's vehicle receiving said primary audio signal representing pertinent vehicle data from said emergency vehicle transmitter; whereby said radio receiver broadcasts an audio warning about the approach of an

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emergency vehicle, as taught by Hutchinson, so as to allow emergency service vehicles to be heard despite improved sound proofing in cars and more powerful sound systems.

As to claim 2,

Hutchinson discloses:

including a master controller receiving the output from said emergency vehicle on-board diagnostic computer, said master controller generating said primary audio signal to be sent by said transmitter ([0017]; [0019-0020]).

As to claim 11,

Arbinger discloses:

An in-vehicle emergency warning system (fig. 1,2) comprising;

an on-board computer in said emergency vehicle; a global positioning system transceiver connected to said emergency on-board computer for calculation of relative position of said emergency vehicle; (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

Arbinger fails to specifically teach a master controller receiving the output from said emergency vehicle on-board diagnostic computer; a transmitter on said emergency vehicle, said transmitter receiving and transmitting audio and data signals from said master controller on a pre-selected sub-carrier frequency to a motorist's vehicle; a radio in said motorist's vehicle capable of receiving an interrupt signal to interrupt standard broadcasts and receive audio and data from said emergency vehicle; said emergency vehicle transmitter transmitting an interrupt signal to interrupt standard broadcasts on

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said motorist's radio and an audio signal alerting a motorist of an approaching emergency vehicle.

In an analogous art, Hutchinson discloses:

a master controller receiving the output from said emergency vehicle on-board diagnostic computer ([0017]; [0019-0020]);

a transmitter on said emergency vehicle, said transmitter receiving and transmitting audio and data signals from said master controller on a pre-selected sub-carrier frequency to a motorist's vehicle ([0019-0020]; [0017]);

a radio in said motorist's vehicle capable of receiving an interrupt signal to interrupt standard broadcasts and receive audio and data from said emergency vehicle ([0020] automatically retunes)

said emergency vehicle transmitter transmitting an interrupt signal to interrupt standard broadcasts on said motorist's radio and an audio signal alerting a motorist of an approaching emergency vehicle ([0019-0020]; [0017]).

As to claim 12,

Arbinger discloses:

said emergency vehicle transmitter receiving position information from said global positioning system and on-board computer (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

Hutchinson discloses:

position information delivered to onboard computer to a master controller; said master controller selecting and delivering an appropriate emergency audio signal

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representing the position of an emergency vehicle relative to a motorist's vehicle to said transmitter; whereby said emergency audio signal is heard by said motorist over speakers connected to said radio ([0017]; [0019-0020]);

As to claim 13,

Arbinger discloses:

said emergency vehicle on-board computer calculates emergency vehicle information from data received from said global positioning system (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

Hutchinson discloses:

Position information delivered to a master controller; said position information being delivered to a master controller; said master controller deriving pertinent information from said on-board diagnostic computer output and generating an output to said transmitter; said transmitter an audio primary frequency and a data sub-carrier frequency to said motorist's radio ([0017]; [0019-0020]).

As to claim 14,

Arbinger discloses:

A method of warning motorists of the approach of emergency vehicles comprising; deriving pertinent emergency vehicle information by an on-board diagnostic computer connected to a global positioning system receiver (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

Arbinger fails to specifically teach processing a data stream from said on-board diagnostic computer in a master controller; transmitting information generated by said master controller to a motorist's radio capable of receiving sub-carrier interrupts; whereby said sub-carrier interrupt capable radio broadcasts an audio message warning a motorist of an approaching emergency vehicle.

In an analogous art, Hutchinson discloses:

processing a data stream from said on-board diagnostic computer in a master controller; transmitting information generated by said master controller to a motorist's radio capable of receiving sub-carrier interrupts; whereby said sub-carrier interrupt capable radio broadcasts an audio message warning a motorist of an approaching emergency vehicle ([0017]; [0019-0020]).

It would have been obvious to one of ordinary skill in the art to modify Arbinger's system to teach processing a data stream from said on-board diagnostic computer in a master controller; transmitting information generated by said master controller to a motorist's radio capable of receiving sub-carrier interrupts; whereby said sub-carrier interrupt capable radio broadcasts an audio message warning a motorist of an approaching emergency vehicle, as taught by Hutchinson, so as to allow so as to allow emergency service vehicles to be heard despite improved sound proofing in cars and more powerful sound systems.

As to claim 15,



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Arbinger discloses:

said emergency vehicle on-board diagnostic computer derives pertinent information regarding vehicle speed, location and position (col. 4, lines 10-20; location, position, velocity).

As to claim 16,

said information transmitted from said emergency vehicle to said motorist's radio comprises a primary audio frequency and a data sub-carrier frequency ([0019-0020]; [0017]).

**2. Claim(s) 3-10, 17-20 is/are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arbinger (6339382) in view of Hutchinson (2003/0164775), and in further view of Markow (6087961).**

As to claim 3,

Arbinger in view of Hutchinson fail to specifically teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle.

In an analogous art, Markow discloses including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle (receiver and radio may be a single unit; col. 4, lines 6-20; fig. 2, 4; display screen 100, col. 4, lines 21-37).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson's system to teach including a dash-board based indicator in said

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motorist's vehicle for indicating the approach of an emergency vehicle, as taught by Markow, so as to allow provide the vehicle operator with a visual reference as to the presence and location of the approaching emergency.

As to claim 4,

Markow discloses:

said dash-board based indicator is an icon that is illuminated when an output from said emergency vehicle transmitter is received (col. 4, lines 21-37; fig. 4).

As to claim 5,

Markow discloses a vehicle shaped icon (col. 4, lines 21-37; fig. 4).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have said icon is brightly illuminated letters "EV" on a dashboard display, so allow so allow a user and to view an effective visual display.

As to claim 6,

Markow discloses:

dash-based visual indicator includes icons around a central icon that indicate relative position of an emergency vehicle (col. 4, lines 21-37; fig. 4).

As to claim 7,

said central icon is a brightly illuminated "EV" (see claim 5; Although Arbinger in view of

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have an illuminated icon, so allow a user and to view an effective visual display.

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As to claim 8,

said icons around said central icon comprise a plurality of dots in a circle around said central icon (col. 4, lines 21-37; fig. 4; dots is defined as small spots).

As to claim 9,

Markow discloses said plurality of dots around said central icon, equally spaced in a circle around said central icon (col. 4, lines 21-37; fig. 4; dots is defined as small spots).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow to teach eight brightly illuminated dots equally spaced in a circle around said central icon so as to allow provide the vehicle operator with a visual reference as to the presence and location of the approaching emergency.

As to claim 10,

Markow discloses:

at least one of said dots is illuminated to indicate the relative position of an emergency vehicle col. 4, lines 21-37; fig. 4).

As to claim 17,

including a visual indicator for indicating the approach of an emergency vehicle on a dash-based visual display Arbinger in view of Hutchinson fail to specifically teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle.

In an analogous art, Markow discloses including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle (receiver and

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radio may be a single unit; col. 4, lines 6-20; fig. 2, 4; display screen 100, col. 4, lines 21-37).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson's system to teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle, as taught by Markow, so as to allow provide the vehicle operator with a visual reference as to the presence and location of the approaching emergency.

As to claim 18,

said dash-board visual display illuminates an icon to indicate the approach of an emergency vehicle (col. 4, lines 21-37; fig. 4).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have an illuminated icon, so allow a user and to view an effective visual display.

As to claim 19,

Markow discloses:

said dash-board visual display illuminates one of a plurality of dots in a circle around said icon to indicate the relative position of an emergency vehicle (col. 4, lines 21-37; fig. 4; dots is defined as small spots).

As to claim 20,

Markow discloses a vehicle shaped icon (col. 4, lines 21-37; fig. 4).

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It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have an illuminated icon on said dashboard visual display is a large "EV" icon, so allow so allow a user and to view an effective visual display.

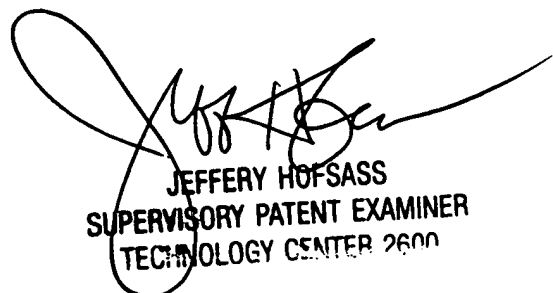
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shirley Chang whose telephone number is (571) 272-8546. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SC

  
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SUPERVISORY PATENT EXAMINER  
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